

SCHOOL LIFE

Official Journal of the . . .

OFFICE OF EDUCATION

In this issue

Educational administration in the decade ahead

The elementary school: an ideal



JANUARY 1961

CONTENTS

- 3 Brief reports
 - End of a term
 - Orientation to the deaf
 - Earning opportunities forums
 - Study in Pakistan
 - Media teaching aids
 - Measurement chart
 - African language study
 - Translations in biology
 - HEW handbook
- 5 School administration in the 1960's
School Administration Branch
- 11 Elementary school: an ideal
Elementary Schools Section
- 16 New administrators for OE
- 18 Time for vision
Wayne O. Reed
- 19 Research reports on loan
- 20 Planning for educational media
- 23 Pupil transportation
Emery M. Foster
- 24 Separation of administrative powers
Robert F. Will
- 25 Library Week
John G. Lorenz
- 28 Adminutes
- 29 Four years of progress
Frederick J. Moffitt
- 31 1960 public school enrollments
- 32 OE publications

Forward Together

It has been my high privilege to serve as Commissioner during one of the most significant 4-year periods in the history of education. For the Office it has been a period of new opportunities, new challenges and encouraging gains, new roads to service, including those opened up by the National Defense Education Act and other legislation.

During this period, as the public has increasingly recognized education as a wellspring of our Nation's strength, citizens and educators have joined in a closer partnership. This partnership has enabled the Office of Education to make a greater contribution in service; from it the Office staff along with other educators have drawn confidence and energy. And it will yield larger and larger dividends as our country moves steadily forward in realizing an educational program worthy of her heritage and her future.

Never have I seen more devoted men and women than those who serve so ably in the Office of Education. I wish all of our citizens could fully realize the effectiveness of their efforts, efforts that go far beyond the call of duty. Through their accomplishments, which are in keeping with the finest ideals of public service, the Office has achieved a distinguished record of progress.

What we have done and what we have learned in these 4 years leads us on, opens up new vistas, for in education the horizons forever widen as we move forward together. It is indeed a wonderful age in which to be a member of the educational team, whether in the United States Office of Education, in the National Education Association, or in the other great forces now acting together to strengthen American education.

Lawrence G. Dertthick

U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE • ARTHUR S. FLEMMING, *Secretary*

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Brief.

EDUCATION AND GOVERNMENT

Reports

The end of a term

This month's editorial is the last *School Life* will carry by Lawrence G. Derthick as U.S. Commissioner of Education. On January 20 Dr. Derthick leaves the Office of Education, after 4 years and 1 month as its head, to become assistant executive secretary of the National Education Association.

The 4 years Dr. Derthick has held the office of Commissioner have been among the most eventful in the history of education and in the history of the Office of Education. On pages 29-30 *School Life* recounts some of the major events of these 4 years.

Orientation to the deaf

Gallaudet College will offer its orientation to the deaf training program twice this spring: March 1-28 and April 12-May 9. The 4-week course offers vocational counselors, welfare workers, and others who work with the deaf intensive training in manual language and an introduction to the occupational, social, and educational problems of the deaf. It carries 4-semester hours credit on the graduate or upper undergraduate levels. Vocational counselors may take the course without credit if they do not meet the academic requirements for admission. Those attending receive grants financed by the college from funds provided by the Office of Vocational Rehabilitation of the Department of Health, Education, and Welfare.

Gallaudet (7th St. and Florida Ave., NE., Washington 2, D.C.) will furnish additional information and application forms. The only college in the world for the deaf, it is supported in part by the Department of Health, Education, and Welfare.

Earning opportunities forums

Every human being can find full achievement to the end of his life. With these wise words by Albert Schweitzer the Women's Bureau of the U.S. Department of Labor prefaces its new leaflet, "Earning Opportunities Forum." The Women's Bureau defines this kind of forum as "a 1-day meeting planned by members of a community to inform mature men and women how to go about finding suitable jobs and to help employers recognize the potential contribution of mature workers."

Forums usually include panel discussions by experts on business and industry, the telling of "success stories" by people who have begun careers late in life, and counseling periods. An important part is a discussion of the training required for jobs open to older workers, and the opportunities the community offers for such training.

On the request of an organization or community leader, the Bureau will help with all phases of a forum—planning, publicity, program presentation (it will often furnish the key speaker), and followup. The new leaflet describes these services—as well as the purpose and importance

of the program. Copies may be had for the asking, from the Women's Bureau, Department of Labor, Washington 25, D.C.

Study in Pakistan

The Embassy of Pakistan has asked the Office of Education to announce that its government, under a cultural scholarship program, is offering two post-high-school scholarships to U.S. citizens for the academic year 1961-62. The scholarships will cover tuition, fees, and room and board, but not passage to and from Pakistan. The scholars may pursue any course, including medicine, engineering, agriculture, art, science, and humanities.

Applications for the scholarships will be processed by an agency of the U.S. Government, not yet named. Until an agency is designated, students interested in the scholarships can obtain information about them from the Education Division, Embassy of Pakistan, 2315 Massachusetts Ave., NW., Washington 8, D.C.

Report on media teaching aids

The Institute for Communications Research at Stanford University has published a report of a research project supported by title VII-B of the National Defense Education Act of 1958. "New Teaching Aids for the American Classroom" reports a symposium on research in instructional television and tutorial machines, which was held at the Center for Ad-

vanced Study in the Behavioral Sciences, under the auspices of the Institute for Communications Research and the Office of Education. Contributors include William E. Spaulding, former president of the American Textbook Publishers Institute; Wilbur Schramm, director of the Institute for Communications Research; A. A. Lumsdaine, program director at the American Institute for Research; and Roy M. Hall, Assistant Commissioner for Research, Office of Education.

The Publications Inquiry Unit of the Office of Education has a small supply of the report and will send out single copies on request. Copies are available also from the Institute of Communications Research, Palo Alto, Calif., for \$1 to cover the cost of handling and mailing.

Measurement chart

Suitable for classroom use, the latest edition of the wall chart, *Metric System of Measurement*, has ready answers to many questions. Prepared by the National Bureau of Standards, the 46" x 29" chart carries information on the metric equivalents of the yard, pound, and nautical mile, on the recent change to a wavelength standard of length, and on temperature scales. It sells for 50 cents from the Superintendent of Documents, Government Printing Office, Washington 25, D.C. Ask for NBS Miscellaneous Publication 232.

African language study

Before long, Americans going to work in the sub-Sahara nations of Africa are likely to go equipped with a basic knowledge of some of the languages of these regions. Many will owe their proficiency to a study the Foreign Service Institute of the Department of State is conducting under a contract financed by title

VI of the National Defense Education Act.

The Institute is developing 11 brief basic sets of teaching materials for use in multilingual courses for three sub-Sahara areas of Africa: (1) West Coast (Federation of Mali, Upper Volta, Gambia, Guinea, Sierra Leone, Liberia, and the Ivory Coast), (2) West Central (Ghana, Togo, Dahomey, Nigeria, southern Niger, and British Cameroons), and (3) East Coast and East Central (Kenya, Uganda, Tanganyika, Ruanda-Urundi, and much of the Republic of the Congo). The courses will be grouped according to the languages of the three areas: (1) Mandetan (Mandingo or Malinke-Bambara-Dyula), Fula, and Mossi (More); (2) Akan, Yoruba, Hausa, and Ibo; and (3) Ki-nya-ruanda-Ki-urundi, Lingala, Chiluba, and Swahili.

The languages of the sub-Sahara areas present a special problem. They are many; none of them are widely used. For these reasons, it is more useful to acquire a basic skill in three native languages than proficiency in one.

The Foreign Language Institute expects to complete these materials by June 30, 1962, at a cost of \$26,115.

Translations in biology

Scientists in this country have available to them translations of Soviet research journals and monographs in biology through two programs of the American Institute of Biological Sciences supported by the National Science Foundation. The purpose of these programs is to help biologists in research, prevent duplication, acquaint scientists with the work of Soviet biologists, and promote international understanding. AIBS offers these translations at a fraction of their publication costs, thanks to NSF support. AIBS members and academic and nonprofit

libraries receive a special reduction in price.

The journals being translated are *Doklady* (sections on biology, botany, and biochemistry), *Plant Physiology*, *Microbiology*, *Soviet Soil Science*, and *Entomological Review*. The monographs so far published are *Origins of Angiospermous Plants*, *Problems in the Classification of Antagonists of Actinomycetes*, *Marine Biology* (Trudi Institute of Oceanology, Vol. XX); *Arachnoidea*; *Arachnida*; and *Plants and X-Rays*.

The American Institute of Biological Sciences has additional information on these programs which it will furnish on request. Write to the Institute at 2000 P Street NW., Washington 6, D.C.

HEW handbook

For the second year the Department of Health, Education, and Welfare has issued a report on its work: *Handbook of Programs of the U.S. Department of Health, Education, and Welfare, 1961 Edition*. It contains information on legislation passed by the 86th Congress, 2d session, affecting departmental programs; a 5-year summary of statistics on expenditures, personnel, and program dimensions and trends; and description of the functions and programs of its major units, such as the Public Health Service.

Programs of the Office of Education cover 36 of its 255 pages. Five pages more are given to educational institutions (Howard University, Gallaudet College, and the American Printing House for the Blind) supported in part by Federal funds administered by the department.

The handbook sells for \$1.75 a copy from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

Educational administration in the decade ahead

WHAT is the strength of the forces that will shape educational administration in the 1960's? What direction will they take?

In a time when an already complex society is changing at a constantly accelerating rate, these questions are with good reason uppermost in the minds of school administrators and school board members throughout the Nation. Birth rates are rising, every day brings dramatic additions to human knowledge, science and technology are in a new revolution, demand for trained men rises while demand for the untrained falls, each year the flood of young people entering the labor market continues to swell; and over it all hangs the threat posed by new weapons of war and the growth of an ideology unfriendly to democracies everywhere.

These changes, which offer unprecedented challenges to educational leaders and school board members, have already left their mark on our educational system. The decade just past may well become known as the period when the United States reawakened to the importance of education. The country increased its efforts to provide facilities and staff, not only to accommodate the mounting enrollments but to improve the quality of education generally. Its educational enterprise involved one-fourth of the population and billions of dollars. In elementary and secondary public schools alone enrollments rose 44.5 per-

cent—from 25 million to 36 million; the number of classroom teachers rose 42 percent, from approximately 913,000 to over 1,300,000; and costs tripled, rising from \$5.8 billion to \$15.6 billion.

But the decade ahead promises even more dramatic changes in the public schools. By 1969-70, estimates say, there will be nearly 32 million pupils in kindergarten through the eighth grade, 15 percent more than the 28 million in 1959-60. There will be 12.4 million in grades 9-12, or 47.5 percent more than the 8.4 million in 1959-60. And, if colleges enrollments keep rising as fast as they have in recent years, enrollments in institutions of higher learning will nearly double, and the total college enrollment will represent about 44 percent of all 18-to-21-year-olds in the country. Increased enrollments and the push for quality will send costs soaring all along the line; in elementary and secondary schools they may double or even triple.

As productivity in the United States increases, the average consumer will have an ever-widening margin of choice for goods and services over and above essentials. To educational leaders this growing margin will bring a correspondingly growing responsibility for presenting education to the public as a desirable good to buy, for keeping the public informed about school costs.

The forces which in the 1950's gave impetus to inquiries into what is to be taught in the schools and how it should be taught will grow stronger in the 1960's; and there will be an intensive examination of curriculum, organization, instructional technology, and use of staff. Many communities may well lengthen the school day to 8 hours for intermediate and secondary grades, and the school year to 200 days for all. Summer sessions will become increasingly common as a means of expanding and improving programs. Education will be extended both upward and downward: there will be more kindergartens and nursery schools, more community colleges (most communities of 50,000 and more will have their own), and more publicly supported junior colleges and technical schools.

Above all, the people of the United States will increasingly recognize that no nation can be stronger than the sum total of the capabilities of its citizens and that education is the key to the development of those capabilities.

This forecast of some of the developments in educational administration was planned and developed in a series of staff conferences and discussions. Contributors are Fred F. Beach, Bert K. Adams, Albert L. Alford, John L. Cameron, Don M. Dafoe, Elmer C. Deering, Herbert G. Espy, R. N. Finchum, Charles O. Fitzwater, Gene C. Fusco, James E. Gibbs, Clayton D. Hutchins, Penrose B. Jackson, Allan R. Lichtenberger, Marion A. McGhehey, Peter P. McGraw, Eugene P. McLoone, W. Edgar Martin, Howard A. Matthews, Albert R. Munse, John B. Murray, Chalmers G. Norris, John F. Putnam, William B. Rich, Winston L. Roesch, Ivan N. Seibert, Stanley V. Smith, James P. Steffensen, Arch K. Steiner, August W. Steinhilber, Merle A. Stoneman, George G. Tankard, James L. Taylor, Jerry N. Waddell, Alpheus L. White, James W. Whitlock, and Robert F. Will. The material was assembled by Gene C. Fusco.

The Congress will be more and more concerned about the manpower needs of the Nation as a whole—needs that no State or group of States can meet alone. And the idea will gain ground that education, like military defense, social security, and highways, is a matter of national interest and should be financed by the entire national economy.

Because knowledge is part of readiness, this article offers educators and lay citizens some measure of the revolutionary changes that will take place in educational administration in the decade ahead.

Administrative Organization

Almost everywhere the adequacy and efficiency of the school administrative organization will be severely tested. Massive population shifts will continue to reduce pupil enrollment in open-country areas and to press heavily on urban and suburban localities. In densely populated areas the task of maintaining quality programs in the face of increasing enrollments and rising costs will require widespread organizational changes and adaptations. Rural areas will have to adjust to pupil loss. All levels of administration—State, intermediate, and local—will be affected.

Over three-fourths of the increase in public school enrollment will be concentrated in fewer than 200 metropolitan areas. The great increase in the size of metropolitan school systems will create problems of organization, facilities, finance, staff administration, and problems of adapting programs to meet new needs.

Metropolitan areas will be the new frontier in educational administration. A broad array of socioeconomic problems will call urgently for solution in metropolitan areas. We can look forward to numerous governmental improvement programs, most of which will influence school administrative organization, either directly or indirectly.

Decentralization of administration will become increasingly common in very large school systems. More and more large school systems will be subdivided for certain administrative services. There will be other changes, too, to counteract the undesirable effects of bigness and to keep the schools closer to the people.

Greater emphasis will be given to school redistricting in suburban localities. In the past, district reorganization was considered almost wholly a rural problem; but in the 1960's it will come to the suburbs also, in a particularly complex form. New programs will be specifically designed to deal with it.

The number of school districts will go below 20,000. Reduction in the number of school districts, now estimated at 42,000, will continue. Almost all nonoperating districts will be eliminated. Most new districts will be 12-grade units and will be larger, on the average, than those established in the past. An increasing number of reorganized districts, particularly in sparsely settled areas, will be of the county-unit type.

The internal administrative organization of medium to large school systems will undergo marked change. More pupil personnel services, more supervisory services and efforts to improve instruction, more emphasis on instructional materials, more attention to school business management—such changes will modify internal organization. Such changes will become increasingly common in large-area systems of the county-unit type and in recently reorganized districts.

Many small high schools that unnecessarily operate as separate units will be consolidated. As large administrative districts are created, many small high schools will be eliminated. Much of this kind of consolidation is likely to take place in States having the county-unit type of organization. In this process sharper distinctions will be drawn between necessary and unnecessary small high schools.

As the traditional idea of the intermediate administrative unit is reexamined, its organization structure will be altered. In a number of States, regional intermediate units of 2, 3, 4, or more counties will be established to provide many kinds of services to supplement and support educational programs of local districts. In a few States where no efforts have been made to strengthen an already existing intermediate structure, intermediate units may be abandoned.

The school principal will assume more responsibility for the instructional program. Concomitantly the central staff will assume responsibility for purchasing, transportation, food services, and maintenance. The trend toward decentralization of instructional responsibilities will lead to an increase in the number of professional assistants to the principal and to the practice of employing them for 12 months.

In State systems the trend toward board-appointed chief State school officers will continue. At present 22 States have their chief school officer appointed by the State board of education; 14 of these have adopted this method of selection since 1945. The trend toward this practice accents the policymaking functions of the State board of education as it provides control and direction for the State system of education and makes the chief State school

officer the head of the board and the chief technical administrator of the State department of education.

The role of the State department of education will be broadened. As State governments expand their educational activities, it will become more and more necessary to provide for positive administrative coordination and direction of activities at the State level. It logically follows that greater administrative responsibility will be given chief State school officers and State departments of education.

The duties and powers of these departments will be broadened and their staffs increased. Consequently, State departments of education will be confronted by such problems as these: (1) Recruitment of specialists and technicians to conduct growing programs and to provide professional leadership to the field; (2) organization of staffs for efficient performance; (3) establishment and maintenance of cooperative relations with other administrative agencies; and (4) provision of adequate working and housing facilities for staff.

Planning

The challenges to public education in the decade ahead demand sound educational planning at all levels of government. Population mobility and the increasing interdependence of all units of government require that local planning be coordinated with statewide and nationwide planning. Long-range planning will supersede much of the haphazard planning that now responds to each new crisis. Planning will be increasingly based on reliable and comparable information and will be supported by quality research; it will require recruitment of people of the highest integrity—people whose zeal for truth is surpassed only by their dedication to the educational welfare of young people.

Educational program objectives will increasingly become the focus of the budget process. Budgets and accounting systems will be set up in such a way that it will be possible to measure the effort expended on specific educational objectives. The financial plan will develop from the educational program plan, not dictate it.

Complete, accurate, and timely information will be increasingly recognized as essential to sound educational planning. Since educational statistics must be used for both comparison and synthesis, data drawn from many sources must be comparable. Standardization, therefore, will be the keynote of recording and reporting—standardization of definitions, terms, and measures; and a continuing evaluation of terminology will lead to new terms and measures as conditions change. In addition, educational

accounting will be expanded to take in all the elements of management—not just dollars but pupils, staff, property, and programs. Accurate accounting and prompt reporting will contribute much to sound educational planning.

Greater emphasis will be placed on systematic research as a basis for solving problems. Research will come to be considered the key to dynamic progress in education. Schoolmen will be more and more eager to accept and apply the results of research, to close the gap between the possession and the utilization of knowledge.

More modern machines and systems will be used in accounting and in recording and reporting information. Automatic processing of educational data will be standard practice. As local districts decrease in number and increase in size, a greater percentage of them will install machines. Machine techniques will be applied to data on pupils, staff, facilities, and school programs. As a result, teachers will be able to devote to the instructional program much of the time they now spend in record keeping.

State departments of education, equipped with a technical staff and the machines for automatic data processing, will become educational data centers. Much basic information will be recorded at its source in machine-usable form, and therefore can be quickly transmitted to local, State, and national agencies, to become part of a true intercommunicating system.

Legal structure

To handle the educational problems that will continue to grow in complexity at all levels, officials will give increased attention to the legal structure for education.

School board members will need to understand not only immediate community problems, but also State and national problems. Board members will make greater efforts to be well informed and to be continually alert to changing needs. School board associations and related organizations will provide new and varied types of services to board members.

School board members will spend more time and effort in formulating policies to strengthen and improve the educational program. As a consequence, the administrative staff will be challenged to put forth its best effort to give board members timely and accurate information on developments in the school program and to call attention to forces influencing developments.

More local school systems will have the advantage of carefully organized and well-written school board policies, supplemented by administrative rules and regula-

tions. This development will help school superintendents and the school board to differentiate between policy-making and administration, and will strengthen the relation between superintendent and board.

Many States will do more codifying and recodifying of their school laws. They will give attention to the substantive content of the school law and to the structure, form, and indexing of the school code. They will recognize the pressing need for codification of the rules and regulations of State administrative bodies that have regulatory powers over local districts. In addition, the sheer volume of statutes and administrative rules and regulations will result in an increasing demand for court interpretation and clarification, particularly on sensitive questions of public policy.

There will be increasingly urgent problems of coordination between school systems and other government agencies directly influencing educational planning. Such problems will be most prevalent in rapidly growing suburbs, which typically have many local government agencies. In some communities the overlapping jurisdiction of agencies will add complexity to school planning.

Staff

Both size and quality of the staff in educational institutions will be affected by society's demands in the 1960's. Standards will be raised for training and selection, for performance and growth, not only because society demands these improvements but because the educational profession itself will take on more responsibility for seeing that improvements are made. This increased acceptance by the profession of responsibility for its own excellence may be the most significant contribution of the decade to development and utilization of staff.

The quality of the candidates for instructional staff positions will be substantially higher. A greater proportion of college graduates will be attracted to education as a result of improved professional standards and conditions, including a better reward system.

Major changes will be made in the reward system, including salary, fringe benefits, and other compensations which influence the achievement of personal and professional goals. As the several professional duties in the teaching situation become more clearly differentiated and the number of specialized positions is increased, professional and nonprofessional responsibilities of the instructional staff will be more clearly defined. Opportunities for growth and advancement within the profession will rise sharply.

Greater reliance will be placed on objective measures in recruitment and selection of staff. Such measures will materialize from current research into prediction of success. Use of these measures will be stimulated by the larger number of specialized positions for which requirements can be carefully delineated.

The teacher-class as the basic unit of the instructional program will be severely scrutinized. Advances in curriculum development and instructional materials and methods will necessitate the use of specialists and more flexible schedules from grades 1 through 12.

The total program of personnel administration, including the responsibilities of principals, personnel directors, and superintendents will be more highly organized. Although many personnel functions will be decentralized, the development and coordination of systemwide policies, paralleling a carefully planned program of personnel administration, will be centralized.

The current emphasis on the improvement of professional preparation programs for school administrators will be intensified. The characteristics of sound programs will be more clearly defined. If single discipline programs fail to meet the demands, interdisciplinary programs will become increasingly common. The early identification and recruitment of potentially successful administrators will be more highly organized.

Fewer members of the professional staff will be trained in public teachers colleges. The change of teachers colleges to State colleges will be accelerated, and by 1970 there will be few public teachers colleges left. Educators will be trained in institutions that prepare people for other professions too.

Organized and systematic inservice education programs for professional staff will be developed. Because of the rapid additions to knowledge in all fields and the scrutiny being given to teaching methods, educators will not long find their preservice training adequate. To maintain their professional status, educators will regularly participate in many types of inservice education programs.

Facilities

Predictions of population and school enrollment indicate that the United States will need more than 600,000 additional classrooms and related facilities in the 1960's. Design and use of these facilities will be influenced by—

1. An acceleration of and an improvement in State services by responsible agencies to local school districts, particularly in the interest of long-range educational planning

and the coordination of Federal, State, and local efforts to provide the needed schools.

2. Technological developments in construction methods, engineering, building materials, and the manufacture of school equipment.

3. Research and experimentation in building design.

4. Socioeconomic influences on the size and number of school districts, the organization and size of each school, the methods of financing school construction programs and educational services, and the degree to which facilities are used by school and community groups.

5. Instructional innovations, including various teacher-student ratios, team teaching, educational television, machine teaching, and other technological developments in instruction.

School buildings will have more flexibility. Instructional and other spaces in buildings will be adaptable to changing teaching methods and varying scheduling patterns. For example, walls will be easily movable, permitting two or more rooms to become one large room or one room to be divided into two or more small rooms. They will make it possible to subdivide auditoriums into instructional areas of various sizes for both small and large groups, and thereby increase the use of auditorium space by as much as 90 percent.

School facilities will be more extensively used for both school and community activities. Trends toward a longer school year, a longer school day, more adult education programs—all these will increase the use of school facilities. Junior and senior high school facilities will be used for evening programs of community colleges and for college and university extension courses. Groups in many communities will use school facilities more and more for such purposes as recreation, meetings, and projects.

School planners and architects will make significant changes in school building design. In large cities, where land costs are high, there are likely to be schools with underground gymnasiums, auditoriums, civil defense shelters, and automobile parking and—with towers for instruction, utilities, and general service facilities. There will be other innovations, such as—

1. The windowless school, artificially lighted and mechanically ventilated.

2. The "school in the round," which requires less building material, less corridor space, and gives each classroom more outside glass than conventional buildings.

3. Movable rooms made up of modular sections. These are easily assembled and taken apart; can be set up singly or in a cluster; are comfortable, functional, and architecturally pleasing.

4. Small neighborhood schools for young children (in

some combination of kindergarten through grade 3) in heavily populated areas. These will not have to provide pupil transportation services and, since they do not need large gymnasiums, auditoriums, and cafeterias, will not need large sites.

School buildings will be planned and constructed so that they can be adapted to nonschool use. Urban schools that are abandoned as a result of outmigration or changes in land use will be convertible to office, factory, warehouse, or other business and industrial use at minimum cost.

Buildings for joint occupancy will be constructed in heavily populated urban and suburban areas. These buildings will include dwelling units and school, or business offices and school. A tall apartment building, for example, will have families living on the upper levels and their small children (perhaps kindergarten through grade 3) attending school on the lower levels. As the need for space in the primary grades decreases, space freed can be converted into dwelling units. If more school space is required, the process can be reversed. This plan will eliminate idle or waste space and will prevent overcrowded classrooms. In a similar manner, schools located in or near business districts can share buildings with stores, offices, and other type of business not incompatible with the operation of a school.

The school environment for both teachers and students will be more pleasant and comfortable. Year-round air conditioning will become more common, lighting will be improved, furnishings will be more attractive, and instructional equipment and furniture will be practical, functional, and easy to use.

School plant operating costs will increase. Factors in rising costs will be the maintenance of complicated equipment and the increased consumption of electricity for improved lighting and for electrically operated devices and equipment, such as air-conditioning systems.

School buildings will be more economically and efficiently constructed. Modular design, repetitive use of component parts, new and faster construction techniques, and improved building materials—all these will be part of the new efficiency. Improved building materials will make maintenance easy and long-range maintenance costs low.

Pupil transportation will grow more complex. As suburban areas continue their remarkable growth, they will increase their demands for more and better pupil transportation services, will require more rigid standards in the selection and training of schoolbus drivers. There will be greater uniformity among States in bus operating practices, and improved management and supervision.

Finance

The need for funds for public elementary and secondary schools will increase in the 1960's for many reasons. All indications point to rapid growth in the services these schools will have to supply. Enrollments will increase all along the line but much faster than formerly in the secondary schools, where costs are higher. Many more classrooms will have to be provided. More research and experimentation will have to be undertaken to improve the quality of education. Teachers' salaries will have to be raised considerably if the Nation is to reach the averages recently proposed by the Department of Health, Education, and Welfare and the Office of Education—\$7,439 a year for instructional staff as a whole by 1963-64, and \$7,216 for classroom teachers.

For the past quarter of a century the overriding concept of public school finance has been to provide equal educational opportunity for all, up to a certain dollar level. During the 1960's, however, school finance programs will reflect an increased emphasis on developing each child to the fullest. More funds will be spent on identifying and developing the talents of the individual—through testing, guidance and counseling, special programs, and high-quality teaching.

Federal support for public education will increase. If the past is an index to the future, the Congress will continue to discuss two kinds of Federal aid to public elementary and secondary education—general support and support for special programs. Federal revenues for public education will very likely continue to increase, and the relation of the Federal Government to State and local school systems will be more carefully delineated.

State surveys for financing education will be widespread. In view of the economic developments, shifting financial abilities within the State, and changing tax structure, many States will authorize comprehensive surveys of educational financing. Findings in these surveys will be useful to those who plan and adopt new laws affecting educational finance.

State support for public education will change. Most States have distributed flat-grant funds and equalizing funds to local school districts to support foundation programs, and funds for special purposes. During the 1960's, extensive interest in high quality educational programs, coupled with increasing public recognition that each person must be developed to his highest potential, will cause States to change their plans of support. The percentage of funds from State sources is likely to increase, particularly in States where this percentage now is low.

Local school spending patterns will change. Increased

emphasis on quality education and on programs for identifying and developing talent will cause local schools to change expenditure patterns to meet new requirements.

Property taxes will yield more but will contribute a smaller proportion of school revenues. Although the public schools will receive larger amounts from the property tax, the proportion of total school revenue derived from this tax will decrease in most States as revenue from other sources increases.

Competition for the tax dollar will become acute. Revenue demands for higher education will necessitate substantial increases in State funds. Other public services such as health, highways, and welfare also are likely to compete for the tax dollar.

School bonds will be issued for shorter terms. As more boards of education realize that interest rates on long-term school bonds are higher than those on short-term and that the total amount of interest is much greater, more of them will issue bonds for shorter terms and thereby permit faster recuperation of the bonding capacity. It is estimated that by 1970 boards will be issuing school bonds for an average term of 15 years, rather than for the present average of 20 years.

School business management will become increasingly important. As school districts decrease in number and increase in size, and as educational expenditures mount, more attention will be given to all aspects of school business management. More school districts will employ professionally qualified management officials.

School and community relations

During the 1960's public schools and community junior colleges will increasingly become integral parts of the community. Community schools will be deeply involved in improving the quality of community living, and measures will be devised to determine how well they meet this objective. The high school and, especially, the community college will serve as intellectual and cultural centers for adults and for the near-adult student body. As the community depends more and more on its educational institutions for programs and services, the community in turn will become a vital part of the classroom and the laboratory.

Our traditional ideas of isolation and parochialism will have been severely shaken by 1970. Local, State, and regional groups will intensify their efforts to coordinate their educational planning and to take account of national and international interest. The schools will play a leading role in shaping community attitudes.

The elementary school: A composite picture

WHAT did the 1960 White House Conference on Children and Youth have to say about elementary school education? Out of its 670 recommendations how many have a message—and what message?—for those who support, plan, build, administer, teach, and otherwise serve the elementary school?

This question has been in the minds of elementary school people ever since the conference closed, last April 2, after its 7,600 members had spent a week of deliberating on all the forces that bear on children these days, a week of considering how these forces might be either mitigated or reinforced to help the new generation become the strongest and wisest this Nation yet has known.

One would have thought the message for elementary education an easy one to summarize, once the recommendations had been printed and distributed, as indeed they were some weeks later. But it proved far from simple. Of the 128 recommendations presented under the heading "Education" in the official report, not all applied to the elementary school, some only in part; and even the most cursory reading turned up still more recommendations for elementary education under nearly every other heading in the book, including *Leisure, Social and Technological Change, and Mass Media*. Although this pervasive refer-

ence to education was gratifying evidence that the conferees recognized the overwhelming importance of the elementary school in a democracy, it complicated things for those who wanted quickly a full statement of the conference's mandate to the elementary school.

In the Office of Education, where the Commissioner of Education and the staff of the Elementary Schools Section every day felt the mounting demand for such a statement, the decision was made early last summer to call a small conference of educators and other leaders interested in elementary education, some of whom had participated in the White House Conference, to join in the job of analyzing, interpreting, organizing, and condensing all these recommendations into a statement—a statement that could become for teachers and administrators of the elementary schools, as well as for parents and town fathers, a rallying point in this country's never ending effort to bring the schools closer to the people's ideal.

The conference was held October 17–19. The Office of Education staff had done some preparatory spadework: they had pulled out 235 recommendations that either implicitly or explicitly pointed at the elementary school; had grouped them under 11 categories, such as *organization, special services, teachers qualifications, and Federal*



Organized programs for school-community relations will be tied closely to advance research techniques. Measurement scales will be developed which school administrators can use in analyzing and describing community characteristics. Opinion polling and other means of testing community attitudes will be more widely used.

The role of local citizen advisory committees will be refined and developed. By making continuing studies and engaging in long-range planning, these committees will serve as key agencies in strengthening public understanding of and support for education. They will be increasingly helpful to the superintendent and school board members in developing school policy.

More and more school systems will employ staff with special competence in the techniques of communication. These staff members will work closely with all staff members and school building representatives in interpreting

educational information and communicating on a regular and systematic basis with the community.

Schools will conduct regularly scheduled and special television programs to increase public understanding of the educational program. The superintendent, his staff, and lay citizens will make the presentations; and, as a means of evaluating the influence of these programs, the school will provide the community with opportunities to respond.

Quality education will be major news in newspapers, magazines, and other mass media. As public concern centers on what is happening in the classroom, other school activities will receive less attention. Sponsors of television programs will become increasingly alert to the commercial value of programs that show developments in education, and networks will give more and more prime evening time to such programs.

responsibilities; and in advance of the conference had sent a copy of the new compilation to each participant. Even so, the conferees found their assignment almost too large for their 3 days. They reduced it to manageable size by dividing themselves into 3 groups which alternately met separately and together.

Although each group went at it in a different way—one began with a search for a creed, another with an analysis of the virtues and abilities to be developed in children, and another with a description of the ideal elementary school—all found, on their first reassembling, that they were actually moving in the same direction. By checking with each other from time to time they managed to avoid both duplications and omissions. And by the end of the third day, their basic job was done. On some points, they still had not perfected their final statements, and it will yet be some time before the official compilation is published; but all in all the conferees were able to leave behind a description of the elementary school that lives up to the ideal delineated by the 1960 White House Conference.

What is this school like?

What is this school like? Here are some of its principal attributes, each supported by at least one recommendation from the White House Conference, which is identified by the number given it in the official report *Recommendations: Composite Report of Forum Findings, 1960 White House Conference on Children and Youth*.^{*} They are far from being a complete summary of the conclusions of the Office of Education conference; they are not even in precisely the same words, but they make, to our minds, a substantial summary nonetheless—a summary that sketches with broad strokes the good elementary school as it was envisioned by the White House Conference of 1960.

This elementary school is true to the American ideal. It believes in the worth of the individual. It subscribes without reservation to this Nation's historic ambition that all children, regardless of their residence, race, color, creed, or economic or social state, should have equal educational opportunities; and that the education they receive should prepare them to serve their fellow men—not only as skillful practitioners of a vocation but as persons who understand the world they live in and who have the judgment to know what is good in it and the will to try to make it better. (Recs. 24, 131.)

This elementary school knows its role. It defines its

^{*}Not all the supporting recommendations are listed—only enough to provide the reader with at least one piece of evidence from the primary reference source, which is available from the U.S. Government Printing Office, Washington 25, D.C., for 35 cents.

role in the context of the community, for it can set its objectives and plan its program only on the basis of the community's educational aspirations for its children. This is the way it is in the United States, but the White House Conference on Children and Youth recommended a basic role for all schools, no matter what the locality. "Make available to all children and youth," it suggested, "those experiences which will stimulate each student to develop his potential to the fullest, and to meet his intellectual, moral, spiritual, aesthetic, vocational, physical, and social needs as an individual, an American citizen, and a member of the world community."

This is "the unique role of the school in America," the White House Conference said. But the Office of Education conferees objected to the word "unique." The school, they said, could hardly claim exclusively a role it shared with others, particularly with the home; and they revised their own statement to call it "the primary role." (Recs. 131, 141.)

This elementary school sees itself as part of its community. It believes that its pupil population reflects the racial, religious, and economic makeup of the community; that the school is a microcosm of the community. It recognizes that other community services share some of its responsibilities, and that all services must work together if children are to have the best possible opportunities for such things as health, recreation, physical and cultural development, and participation in the creative arts. It welcomes the help of organizations and individual citizens in determining the educational needs of the community, evaluating the school's program and interpreting it to the public, recruiting staff, preventing dropouts and failures, and sustaining financial support. In turn, the community offers the school its resources for enriching the curriculum, both by developing and sharing materials and by giving children opportunities to become acquainted with, even to participate in, the community's activities and programs.

The interdependence of school and community was much emphasized by the White House Conference, which in more ways than one seemed to be saying that the education of children is everybody's business. At least three recommendations reminded adults that their lives are examples for children; and responsibilities were laid at the doors also of commercial interests in general, broadcasting and advertising agencies, newspaper publishers, motion picture producers, the Federal Communications Commission, and even the President of the United States. (Recs. 74, 95, 124, 126, 129, 463, 473, 475.)

This elementary school draws on the family for strength. Recognizing that the family is the basic unit of society and bears the ultimate responsibility for what the child

becomes, the school teaches its pupils to respect it and to share in making it stable, secure, and happy. It does this by providing opportunities in the curriculum—formally or informally, depending on the community—for family life education, by providing reading materials, by cooperating with community agencies responsible for working with multiproblem families. It keeps in touch with each child's family, to draw upon its strength, to assist with no thought of supplanting. (Recs. 89, 103, 353.)

This elementary school tries to educate all children. It welcomes the gifted and the handicapped as enthusiastically as it welcomes all those called normal, and provides with equal energy and devotion for children with unusual needs and children with unusual talents. It is dead set against denying educational services to any child, opposes the lowering of compulsory education laws. (Rec. 128.)

This elementary school is concerned about the individual. At the same time that it is committed to the education of all children, the school is committed to the education of the individual child. Sharply aware that every child is different, has different gifts and different needs, the school is determined to take these differences into account. It constantly works to give every child, no matter how far he may deviate from one norm or another, the best possible opportunity to develop his powers, particularly his intellectual powers. It evaluates his progress in terms of his own ability and bent rather than in terms of an external standard impossible for some but too easily attained by others. In short, it considers itself responsible for seeing that no individual is submerged in the Nation's effort to educate everybody.

Therefore, the school seeks to understand each pupil. Through a systematic assessment program which carefully considers all the evidence—the child's behavior, his scores on many kinds of tests, his cumulative records, his teachers' judgments, information from his parents, and all the rest—it tries to get a fair idea of what the child is like, what his talents are, his interests, his personal traits. But even after all the evidence is in, the school humbly withholds its judgment and consistently refuses to relegate the child to any rigidly defined category. To the very last day the child is in its charge, the school encourages him in his right to be an individual.

Moreover, in its effort to identify the gifts of the individual, the school guards against imputing more value to one gift than to another. This it does as much out of concern for society as out of respect for the child: it never forgets that a democracy can rise no higher than the level of its average citizen.

In its identifying of talent, in its guidance program generally, the school places the major responsibility on

the teacher. But it also provides highly trained specialists to whom the teacher can go for help: Counselors, social workers or visiting teachers, and psychologists. (Recs. 131, 134-5, 166, 191, 195.)

This elementary school has a curriculum consistent with its role. In the controversy between "the 3 R's, period" and "the 3 R's, plus," the school is firmly on the side of the latter as it seeks to follow the people's mandate to maintain balance—"balance between science and technology on the one hand, and creativity in the arts and humanities and a sense of moral and spiritual values, on the other." Every plus that it adds to the 3 R's is tested against a multiple standard—the pupil's need, the requirements of a democratic society, the changes going on in the world, the cultural pattern of the community, and the existence in the community of other agencies and institutions that can take part in the educative process. On this basis it adds the humanities, the sciences, and the arts.

Believing what it has long professed—that the curriculum should meet the needs of the individual child—the school gives freedom to the one person in the school who knows the child best—his teacher. Realizing that the child can move ahead only from the point where he is and that therefore he, not the curriculum, provides the continuity in the learning process, the school asks the teacher to make the curriculum. True, the school provides a broad outline as a guide, but otherwise it leaves the teacher free to use his creative imagination and his intimate knowledge of his pupils and their backgrounds to build a curriculum that is rich and flexible enough to provide every child with challenging opportunities to learn. The school does not give this freedom lightly: in return it asks of every teacher a highly professional performance—a performance that shows knowledge, alertness, skill, insight, and an understanding heart.

By this emphasis on a curriculum that serves the individual child the school puts a premium on diversity. No teacher is true to the school's purpose who, though he piously avows to cultivate individual differences, strives for conformity among his pupils. (Recs. 132, 137, 139.)

This elementary school helps children develop values to live by. The school recognizes that a sense of abiding values, a code of virtue, a frank facing up to things as they are, will help a child feel secure. It strives to build firm values without imposing rigidity, to help each child understand his own capabilities and limitations. It wants no part in producing a "cool" and uncommitted generation: it wants its pupils to develop lively and enduring commitments—commitments to personal integrity, to service of one's fellowmen, to the principles of democracy.

The school sets a good example by choosing a dedicated staff. Its teachers are enthusiastic about school, about their country, about striving toward a goal. They believe so wholeheartedly in the child's capacity for goodness and his possibilities for developing that they transmit their faith to the child. With such teachers making its curriculum, the school imbues children with the idea that they are already members of the community, enjoying its benefits and sharing in its responsibilities; gives them a respect for the worth and the dignity of the individual; and helps them to cherish in themselves the virtues of honesty, integrity, and loyalty. It teaches them to know the dignity of work, to feel concerned about the welfare of others, to respect the symbols, ceremonies, and traditions that belong to their country's cultural heritage. (Recs. 137, 462, 466, 468.)

This elementary school is objective about itself. Although it is eager to experiment, to try new ways, the school is not quick to embrace changes just because they have caught the public's fancy. It wants objective evidence that changes will be improvements, that innovations will not run counter to knowledge about child growth and development. For example, the Office of Education conferees said, it does not yet wholeheartedly accept the idea that grouping children by general ability is of itself desirable. It knows that until now research has turned up no conclusive evidence that such grouping actually aids the learning process; it knows that so far only a few sound measures of general ability have been devised.

In its respect for the scientific method, it follows research projects with an alert eye. It searches for meaning in each study that bears on children of elementary school age. It does research on its own. And its enthusiastic curiosity about new findings is a force that draws classroom and laboratory ever closer to each other.

Because excellence is its constant goal, the school is always evaluating itself, is always asking, "Can we do better?" Not only does it turn to research for more knowledge but it provides inservice education for its teachers.

It is constantly on the lookout for fresh materials and new techniques that will make teaching more effective. It constantly judges its curriculum in the light of new knowledge and changes in society. More than it ever did in the past, it tries to draw upon all disciplines to enrich its curriculum. (Recs. 54, 132, 140, 232.)

This elementary school provides early for young children. By means of a kindergarten and a nursery school, the elementary school reaches down to very young children. There, with flexible programs, it provides education to meet children's early social, physical, intellectual,

and psychological needs; there it also begins to identify the needs and talents of the individual.

The Office of Education conferees noted that the White House Conference repeatedly asked the schools to provide early childhood education, that it mentioned the nursery school almost as often as the kindergarten. All elementary schools may not be able to establish both immediately, the Office conferees said, but every elementary school ought to have at least a kindergarten by the end of the 1960's. (Recs. 153-4, 209.)

This elementary school provides special educational services. Because it seeks to serve all children, the school provides organized services for those with special needs. It provides guidance for underachievers, potential dropouts, and delinquents; therapy for children with speech problems; supporting services for migrant children; mental health consultation services for the emotionally disturbed—and any other services that will substantially improve the educative process.

But the school always remembers, the Office conferees said, that it is a specialized institution. It is not a family service agency; it cannot be all things to all men. Its traditional purpose is to instruct children in their cultural heritage and to develop their intellectual competence. To spare its effort for that purpose, therefore, the school draws as much as possible on other child-serving agencies in the community to meet its pupils' needs. If the community cannot provide these services by itself, it is assisted through some larger administrative unit, such as a county or State. (Recs. 163, 169, 177-78.)

This elementary school has a highly professional staff. Believing that every child has a right to be taught by a competent teacher, the school never compromises on quality when it selects its professional staff.

Its teachers are well educated. They are well grounded in subject matter and in the art of teaching. They understand children. They have at least a bachelor's degree, have met or exceeded the State's requirements for certification. Their academic background is so broad and diverse that they are able to draw on all disciplines as they build the school's curriculum. Every teacher has been especially prepared for the kind of teaching he does, be it teaching in the kindergarten or in the primary or middle grades; teaching the physically handicapped or the mentally retarded; teaching arithmetic or physical education; or teaching in an urban, rural, or suburban community. Despite his qualifications, however, no teacher is content to rest on his laurels. All teachers work constantly to keep abreast of change, not only in educational philosophy and practice but also in society as a whole; they study to correct their weaknesses.

The school manages to attract such teachers not only by paying salaries commensurate with the high requirements but by providing an attractive professional environment—competent administrators, consultants, and supervisors; uncrowded classrooms; a rich variety of instructional materials; freedom from nonteaching chores; time and opportunity for professional growth; and a chance to do imaginative and creative teaching. (Recs. 167, 202–21.)

This elementary school supplies the teacher with tools. It supplies the teacher with all the instructional materials and devices he needs for improving the teaching-learning process, for motivating children to learn, for meeting the special needs of individual children. It has up-to-date textbooks, an ample supply of maps, globes, and pictures; it makes easily available such audiovisual aids as slides, photographs, films, filmstrips, television, and tape recordings. It has a well-stocked, well-ordered library. For physical education it provides such things as balls, bats, and ropes and poles to climb on; for art it supplies the materials and tools needed to encourage experimentation and creativity. (Recs. 222–226.)

This elementary school has the physical plant to match its program. Whether the school is rural or urban, its physical plant is designed for both educational and community purposes so that it can be available on a 12-month basis. It is functional, pleasant, and adaptable to future needs. It has classrooms to accommodate comfortably everything in its curriculum, every child on its rolls. It has been designed to make things easy for handicapped children. It has libraries, lunchrooms, and space for both outdoor and indoor recreation; and provides space and facilities to encourage creativity and experimentation in art, drama, dance, and music. (Recs. 33, 150, 155, 183, 289, 555.)

Does this school exist?

The reader may ask, "Is this the elementary school in my community?"

Perhaps not, for this school is an ideal, a composite of the dreams of millions of people who sent representatives to the White House Conference of 1960. But on the other hand perhaps this is the reader's school, for scattered over this country there are communities that already have turned these dreams into reality. These are communities where the public mind is informed and the public support is firm, where the leaders are inspired people of good will, where the funds are generously provided.

Certainly the White House Conference had no illusions: it knew that quality education in the elementary schools

costs a great deal of money. But knowledge of the cost did not deter it. In recommendation after recommendation it prodded the public conscience. It asked for community support, for State support, for support from the Federal Government. In effect it said to everyone that the education of our children is worth all that it may cost us. And if the public conscience awakes, a good elementary school will rise in every community.

TWENTY-SIX PERSONS from outside the Office of Education attended its conference to study, on behalf of the elementary school, the recommendations of the 1960 White House Conference on Children and Youth: Mary A. Adams, assistant superintendent, Baltimore Public Schools; Lyle W. Ashby, deputy executive secretary, National Education Association (NEA); Roberta Barnes, president, Department of Elementary School Principals, NEA; Lucille R. Beacom, director of education, Lakeview Public Schools, Michigan; Mrs. Rollin Brown, chairman, White House Conference; Dr. Henry S. Cecil, Children's Hospital of Philadelphia; Mary M. Condon, assistant director, Department of Rural Education, NEA; Merle Davis, supervisor of elementary education, National Council of State Consultants in Elementary Education; George Denmark, dean, School of Education, University of Wisconsin; Mary M. Devine, dean, Mills College of Education; Thomas Gladwin, social science consultant, National Institute of Mental Health; Harriette Houdlette, acting associate in elementary and secondary education, American Association of University Women; Earl Hobbs, principal, Forest Knolls Elementary School, Silver Spring, Md.; Eugenia Hunter, president, Association for Childhood Education International; Warren A. Ketcham, professor of education, University of Michigan; Mrs. Albert Kight, president, National Congress of Colored Parents and Teachers; Kathleen McCutcheon, associate director, St. Johns Development Services for Children, Washington, D.C.; Alice Miel, head, Department of Curriculum and Teaching, Teachers College, Columbia University; Marion Nesbitt, supervisor of elementary education, Virginia State Board of Education; John H. Niemeyer, president, Bank Street College of Education; Mrs. James C. Parker, president, National Congress of Parents and Teachers; Mrs. Don R. Printz, Southern Region representative, National School Boards Association; Bernadine Steele, president, Department of Classroom Teachers, NEA; Ruth A. Stout, assistant secretary of professional relations, Kansas State Teachers Association; Ethel Thompson, consultant in elementary education, Department of Kindergarten-Primary Education, NEA; and C. C. Trillingham, superintendent of public schools, Los Angeles.

NEW ADMINISTRATORS FOR

Although this issue was prepared during the last month of the year, and although the editor, Mr. Derthick, we are able, as we go to press, to add thi



Abraham A. Ribicoff

On January 21, 1961, Abraham A. Ribicoff took oath of office as Secretary of Health, Education, and Welfare. The department, which will be 8 years old on April 11, is the youngest of the Federal departments. Mr. Ribicoff is its fourth secretary.

Mr. Ribicoff was born in New Britain, Conn., on April 9, 1910. After attending public schools in New Britain, he studied at New York University and at the University of Chicago. He received his LL.B. degree from Chicago in 1933, graduating cum laude. In the same year he was admitted to the Connecticut bar.

Mr. Ribicoff was elected to the Connecticut State legislature in 1938. In 1941-43 and in 1945-47 he was a judge of the Hartford Police Court. In 1948 and again in 1950 he was elected to the U.S. House of Representatives.

where he served on the Foreign Affairs Committee. He was elected governor of Connecticut in 1954 and was re-elected in 1958.

He has been a member of the Governors' Conference Executive Committee and chairman of its Roads and Highway Safety Committee. He also served on President Eisenhower's Advisory Committee on Intergovernmental Relations.

Eight colleges and universities have given him honorary degrees. From six—Amherst, Fairfield, Trinity, Hillyer, Wesleyan, and Yeshiva—he has received degrees of doctor of laws; from the American International College, the degree of doctor of humanities, and from Hebrew Union College, the degree of doctor of humane letters.

His only son is a high school teacher in Alameda, Calif.

THE OFFICE OF EDUCATION

nth of the administration of Dr. Flemming and Dr.
announcement of the two men who succeed them.



Sterling M. McMurrin

The White House has announced that Sterling M. McMurrin, academic vice president of the University of Utah, has accepted appointment as the 15th U.S. Commissioner of Education.

Dr. McMurrin was born in Woods Cross, Utah, on January 12, 1914. He is a graduate of the University of Utah (A.B. and A.M. degrees) and the University of Southern California (Ph. D.). He has been a visiting scholar at Columbia University and Union Theological Seminary and a Ford Fellow in Philosophy at Princeton University.

His academic appointments include these: Assistant professor of philosophy, University of Southern California; visiting professor of philosophy, Brigham Young University; professor of philosophy, and dean of the College of Letters and Science.

Dr. McMurrin has been president of the Utah Conference on Higher Education and a member of the executive board of the Pacific Northwest Conference on Higher Education. He was moderator for the Pacific Northwest Assembly on Federal Aid to Education, which was convened at the University of Oregon in December 1960.

He has been a consultant to the Fund for the Advancement of Education and the Graduate School of Business, Columbia University. He has also been a lecturer at the Aspen Institute of Humanistic Studies. In 1958-59 he was on a special assignment to Iran for the U.S. Department of State.

He is coauthor of two books on philosophy and has a history of philosophy in preparation. He has written monographs, articles, and reviews on philosophy and education.

A time for vision

WHAT human quality is most required of the men and women who maintain the resources and guide our schools? Patience, stamina, agility, drive, or courage? We need all of them, to be sure. But among the traits most needed in these days, there is one that transcends all others. That trait is vision.

Education in the United States is now, I am convinced, verging on a new era—a period of unexampled progress, of innovation, of vastly greater service to our people. But our progress will depend on our vision, our ability to sense the conditions and needs of our times, our willingness to be in league with the future. If we have such vision and follow it, we shall see great things come to pass.

As we envision the future we should expect many changes, some of them more challenging than those in the past decade. There is, however, one aspect of change that calls for the highest degree of informed thought and imaginative vision: It is our entrance into the aerospace age.

For some years a number of dedicated persons and groups have been trying to discern the future developments of the aerospace age and what they mean to our society. These men and women—scientists and administrative leaders from our universities, from industry, the military, and various other walks of life—are looking into a new world.

It is a world of interplanetary communication, of fantastically precise and complex instrumentation, of drastic

Dr. Reed has long been in the vanguard of those who want to give schoolchildren a wider knowledge of developments in aviation. In the 1940's, while he was State superintendent of schools for Nebraska and national vice chairman of the Aviation Committee of the Junior Chamber of Commerce, he supported changes in the State's curriculum that would prepare children for the aerospace age. Since 1951, first as assistant commissioner for State and local school systems in the Office of Education and later as deputy commissioner, Dr. Reed has continued his efforts on a national scale. This article is from a speech he gave in Denver, Nov. 10, 1960, at a joint convention of the Colorado Association of School Administrators and the Colorado Association of School Boards.



Dr. Reed is congratulated by Commissioner Derthick on his receipt last fall of the Vandenberg Award from the Air Force Association for his "distinguished contributions in the field of aerospace education."

change in man's physical environment; a world of vastly greater dimensions and of changed perspectives in geography, in politics, and in man himself. It is, as Dr. Simon Ramo has called it, a world of intellectronics; a world in which electronic machines will extend man's intellect in somewhat the way that his first crude tools extended his hands.

The world of intellectronics is worth the attention of educators, for it is a world that must be created and ruled by knowledge and wisdom. No man can understand such a world or have access to it unless he has been prepared for it. The unprepared man is too great a hazard to himself and to others even to enter it. But if he could enter it, he could not learn to understand it merely by living in it. It cannot exist for him until he understands certain concepts—has an insight into astronomy, physics, mathematics, biology, economics, and psychiatry.

Much of the information needed to grasp many of the new concepts was unknown to man 50 years ago. Quite understandably much of it is now missing from the school curriculum. Long before we learn how to get it into the curriculum, a mass of other necessary information from the frontiers of knowledge will be crowding for a place. We must find a place in the curriculum for it too so that students may be prepared to understand this new world and to cope with it.

The curriculum seems to be one of the great educational problems of our time. One thing is certain: there is no one simple solution. Yet I often hear people talk as if there were. And the solutions they offer are many: They say, for example, that all will be well with the curriculum if it is planned locally . . . if it grows out of the needs of the child . . . if students are made to take the tough courses . . . if education concentrates on the fundamentals. Good as these ideas are, no one of them, I am sure, is the whole solution; but if anyone asks me for a whole solution, I must answer that I have none.

I do believe, however, that our curriculum should help every person understand the world of today, should make him ready to understand the new world that is to be. I am convinced that much of what we now teach in colleges we must learn how to teach in high schools; moreover, that all our schools must learn to teach fundamental concepts that are not yet taught anywhere. I am equally sure that the old fundamentals are not obsolete, that new ones must be accepted. I am convinced that every pupil

must be made to learn more, to study subjects requiring strict mental discipline, to achieve a stouter and more stable mental outlook than he has had in the past.

The curriculum must become at once broader, deeper, and newer. All learners must achieve standards substantially higher than those we have set. If we are to make this improvement, we must have a finer quality of vision than we have had in developing our curriculum.

Our failure to solve this curricular problem may have grave consequences in our society. If for lack of vision we fail to prepare everyone for a world that will make unprecedented demands for and on prepared men, it is probable that a new dualism will develop in our society. In this dualism there may be, on the one hand, a scientific elite, a sophisticated minority quite capable of shaping the new world as they envision it and, on the other hand, a majority incapable of either understanding or coping with a world of which they are not a vital part.

That, I submit, is highly probable unless we achieve new wisdom in improving the curriculums of our schools.

Research reports available on library loan

By the end of this month, another 35 final reports of projects completed under the Office of Education cooperative research program will be available for loan at the 58 libraries (listed in October 1960 *School Life*) taking part in a Library of Congress project. Here is a partial list of the new reports. The rest will follow next month, along with any newcomers that arrive in the meanwhile.

BURR, SAMUEL E., MERLE R. EYMAN, and WYLIE H. RUSSELL. Development of Fiscal Relationships of State Departments of Education. American Univ., June 17, 1959. No. 341 (7667).

BURRIS, W. R., and others. Screening Procedures for Special Education Services to Mentally Retarded Children. Mississippi State Department of Education, Nov. 22, 1960. No. 139 (6906).

CAIN, LEO F., SAMUEL LEVINE, and others. Effect of Special Day Training Classes for the Severely Mentally Retarded. San Francisco State College, Dec. 19, 1958. No. 109 (6439).

CAIN, LEO F., SAMUEL LEVINE, and others. Effect of Special Day Training Classes for the Severely Mentally Retarded. San Francisco State College, Jan. 15, 1960. No. 416 (8025).

CALANDRA, ALEXANDER. Teaching and Development of an Integrated Physics-Algebra Course at the Ninth Grade Level. Washington Univ., Oct. 19, 1959. No. 403 (7672).

COOLEY, WILLIAM W., and ROBERT BASSETT. Evaluation and Follow-up Study of a Summer Science and Mathematics Program for Talented Secondary School Students, Harvard Univ., Dec. 9, 1960. No. 715 (8372).

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Continued on page 27

Planning plans and programs for the new media

Half of all we know in science we have learned in the last 10 years, J. A. Stratton, president of Massachusetts Institute of Technology said more than 2 years ago, and he predicted that our scientific knowledge would double in the next 5 years and continue to multiply at an ever-increasing rate. Recently an outstanding atomic physicist, according to news reports, refused to give an opinion on a question on which he is an acknowledged expert because he had not reviewed developments in the preceding 2 months. A science teacher's knowledge is already out of date when he is graduated from college.

SUCH FACTS as these are shocking us into realizing that we face sweeping changes in our schools in the next 10 to 15 years, changes that will require us to revise our school programs, facilities, and plants. But the increase in knowledge is only one of the reasons that we face change. There are others; among them these five are commanding:

1. From research in education during the past half century we have acquired greater understanding of the conditions contributing to better learning and of the basic principles and purposes of good education. We have learned, for instance, that we must give greater attention to the needs of the individual, help him learn at his own rate and in accordance with his own abilities; that students should have greater opportunity to assume responsibility for their own learning; that we must find ways of presenting information more effectively.

2. Study after study has shown that changes are needed, that our programs are inadequate, and that there are great inequalities among schools.

3. Increasing school enrollment and the teacher shortage are prodding school administrators to find better ways of making the work of their staffs more effective and of using their plants to better advantage.



Dr. McPherson is program analysis officer for the Educational Media Branch. This article is a condensation of an address he made to a conference on school architecture and the new educational media in Pullman, Wash., July 18, 1960.

4. We will have power tools for better communication, and we'll use more and more of them because without them we won't be able to handle our problems of educational communication. Advances in the technology of communications are offering us better means of storing, retrieving, and distributing information. For example, a research laboratory has reported a micro-space information storage method that makes it possible to store the sight and sound content of a 90-minute Hollywood color film in a space the size of a 3-cent postage stamp. And a trade magazine has described a pair of electronic computers that receive messages, compose answers, and tap them out on high speed verbal printers.

I mention these things merely to point out that changes are coming, not to suggest that our schools will be taken over by electronic computers or any other kind of machinery.

5. Change usually requires money, and we are getting much more money now than in the past. Local, State, and National Government, foundations, business, and industry—stimulated by the realization that good education is essential to our national welfare—are all supplying more funds than ever before.

These then are the facts: We know our schools are inadequate; we know some of the things we should be doing to improve them; technological advances are making it possible for us to do better work and to do it more efficiently; more funds are being provided; we know with certainty that changes will be made. But changes in education cannot be made haphazardly. What can we do now to prepare for them?

The schools we are building will house several generations of students. As we design and plan these buildings, what kind of educational programs should we have in mind? what kind of facilities and materials should we consider?

The major developments that we foresee as affecting our school plants and programs are these: Advances in technology; a systems approach to preparing, selecting, and using instructional materials; and changing organization within the schools.

Advances in the technology of educational communications are making available to educators increasingly efficient means of working. We can look first for improvements in the standard materials and devices we are

now using, such as motion pictures, filmstrips, recordings, opaque projections, three-dimensional materials, and projection transparencies. These materials and devices will be cheaper, more efficient, and far easier to use. They will be used much more frequently as an integral part of school work, and will be adaptable for easy use by individuals and large and small groups.

Among new devices that are certain to come into general use are these—

1. *Television, both closed-circuit and broadcast.*—Technical improvements will make it possible to present most audiovisual materials in the classroom through closed-circuit television. Instructional materials centers serving schools and school systems will be highly automated. The president of a film company says that it is already technically possible for a classroom teacher who wishes to present a motion picture or other audiovisual material to look in a guide to materials for the title, dial a code number, and in a few seconds have the material screened before his class.

2. *Learning laboratories of the language-laboratory type.*—Already the use of language laboratories has been greatly increased. In 1958 only 85 high schools had language laboratories; today more than two thousand have them. Experiments are also being made in the use of laboratory facilities in teaching other subjects. Equipment is being refined so that visual as well as audio materials may be presented. Programed audiovisual materials will be developed according to teaching-machine principles, and with audiovisual and programed materials available, language laboratories, already easily adaptable to individual or group use, will become even more flexible and useful.

3. *Autoinstructional methods and devices of the teaching-machine type.*—Equipment of this type promises to relieve teachers of much of the drudgery of presenting routine information and to make uniform presentations designed by skilled educators available to students.

For school planners, these new methods and devices very likely mean that schools are going to need facilities for transmitting televised learning material and more space for students to work in as individuals. It is estimated that a student will spend as much as 30 to 40 percent of his working time in the school in individual study, using printed and audiovisual materials, learning laboratories, and teaching machines.

Some educators are emphasizing a coordinated systems method of developing, selecting, and using instructional materials and activities. They believe that the best results can be obtained by a teacher using a system of learning that is developed or planned by specialists who have

made a close study of objectives of every course offered and of materials and procedures available.

From the mass of learning materials—textbooks, workbooks, films or filmstrips, recordings, or three-dimensional materials—issued by publishers and producers, many of them working independently, only a few gifted and experienced teachers can select, test, and properly combine all of the ingredients of a good program of learning. Even for them it is such a time-consuming job that very few are able to make the effort necessary to get best results.

In developing a system of learning materials, teams of specialists highly qualified in subject matter, learning theory, educational media, and evaluation join in designing the system and in producing or adapting the most effective possible printed, photographed, or recorded study materials, including materials designed for use in learning laboratories or with teaching machines.

In several projects supported by title VII, National Defense Education Act, researchers are working on coordinated systems of learning materials. One, being conducted at Wayne State University, is developing a system of printed and audiovisual materials, including language laboratory materials, for use in teaching French. Tests of the first experimental materials developed in four Detroit high schools over a year show that after these materials had been introduced there was a 50-percent gain in students' ability to speak French.

More and more curriculum planners are emphasizing the importance of pupils and teachers producing a variety of learning materials within the schools. This emphasis will increase as developments in communications technology make available to educators simpler and more economical means of recording and reporting visual and audio experiences. Within the last few months, for example, 8-mm sound-film equipment, so inexpensive that it is practical for use in developing school-made films, has come out. A leading producer of cameras is predicting that within 3 to 5 years he will produce an 8-mm camera to sell for \$15. With equipment soon to be available a photographer will be able to process his own motion picture films cheaply, easily, and quickly. Improvements in videotape recording and in thermoplastic recording promise to give educators flexible, economical, and easy-to-use audiovisual recording tools.

To the school building planner the development of systems of learning materials and new methods of preparing materials means that facilities and space will be needed for wider and more frequent use of a variety of learning materials, especially audiovisual materials. Plans must include space for a variety of local production activities by pupils and teachers.

The changing organization within schools is also affecting the use of instructional materials and facilities. For example, some schools are determining the size of classes and length of periods by the tasks to be done. Under this plan, each student spends part of his time working alone, part in small groups in which he has close contact with his teacher and extensive opportunities to participate, and part in large groups for instruction.

We have known for years that the standard-sized classroom seating from 30 to 40 students is not ideal, yet it has continued to dominate school organization, largely because it costs less and because the problems of scheduling classes of different sizes and controlling large groups of students are complex. Facilities are being developed that will free us from this organizational straitjacket. We will soon see the day when a computer in the central office of a school system will schedule students on the basis of individual requirements. This will make it possible for the school to use time units of different lengths.

The use of learning groups of various sizes and the requirements of systems of instructional materials and new devices for communication may make it necessary for schools to organize teams of teachers. Team teaching is being developed as a means of obtaining the best use of the skills of each staff member, of adding incentive and satisfaction for teacher and student through the interplay of minds. And it could be a means of stimulating students intellectually through contacts with several personalities rather than one and of letting younger teachers and teacher-trainees benefit from the skill of experienced teachers.

Team teaching will require exceptional flexibility in school facilities. Since we can expect a move toward more and more team teaching, school planners should consider those requirements.

Both educators and school architects are thinking about organizational changes that will affect the planning of school facilities. For example, one architect has made a series of sketches showing three kinds of space that will be required:

Space for the individual student: his own library, study, and work place; in it he can examine materials; to it can be piped recorded or visual materials through closed-circuit audio or television facilities.

Space for the individual teacher: his own library, office, workshop where he can study or confer with pupils.

Space for activities of different kinds: for groups of different sizes; for working areas such as laboratories, craft shops, materials centers, and the like.

How can our building program take all of these developments into consideration so that school plants will

meet the needs of our programs and still not stand in the way of desirable program changes? We have no guaranteed-to-be-right blueprint for the future, yet we are obligated to look into the future and to plan buildings that will not only accommodate the learning programs we now have but provide for foreseeable developments. Those who are looking ahead might find some of these ideas helpful:

1. Planners of school plants and programs should begin their work convinced that the school program is going to change, and bring the best information they can get on the direction of this change to the attention of all persons who plan or use school plants.

2. Every staff member should feel responsible for investigating developments. Here the superintendent's attitude is of the great importance. A study made in Rochester, N.Y., found that the chief influence on the attitude of teachers toward the use of new types of instructional materials was their belief or lack of belief that the school administrators expected them to use new materials. The superintendent can encourage teachers to experiment with learning laboratories and teaching machines, and he can provide them with necessary assistance. Such a program is the best preparation a school system can make for the future.

In most school systems, preparation is needed. A case in point: In 1958, when high schools began installing language laboratories, some supervisors rushed to colleges—before 1958 almost all experimentation with language laboratories had been in colleges—to get specifications so that they could install the same type. I know of one language teacher who visited a university laboratory and said, "I've got to see what a language lab is because we are going to order one immediately."

Very likely many high schools, with little advanced study, little knowledge of laboratory facilities, and little experience in using them, have bought equipment unsuitable for high school use, and worse perhaps, antagonized teachers by telling them to begin using them without adequate training. This could happen with teaching machines and other equipment.

3. From a program of preparation can come a sound plan for including staff members in developing educational specifications for the school facilities they will be using. There are very few schools in which teachers are not invited to have some voice in the planning of school facilities, but I have observed a great weakness in the way this works: Many teachers who have been asked for advice have not had an opportunity to prepare themselves to use the opportunity effectively. On the other hand, I have known of groups of teachers who, because their recommendations grew out of years of continuing exami-

Transportation of public school pupils, 1957-58 and 1958-59 in the 49 States

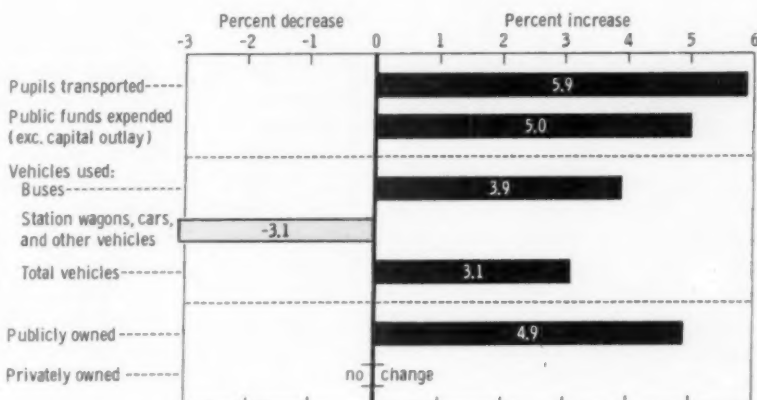
Pupil transportation A growing service

FROM year to year the transportation of pupils, one of the auxiliary services of the public school system, becomes more important and extensive. In 1958-59 approximately 12 million pupils, or more than one-third of the 34.6 million pupils enrolled in public elementary and secondary schools, were transported to and from school in 176,000 buses at a cost of over \$440 million, not including the cost of new buses.

These figures represent an increase in one year, from 1957-58 to 1958-59, of more than 600,000 or almost 6 percent in the number of pupils transported; \$20 million or a little less than 5 percent in total expenditures; and about 5,400 or a little more than 3 percent in the number of vehicles used.

There are many causes for the growth in transportation services but chief among them is the reorganization of school districts. To provide better programs and facilities, districts are closing many small schools and transporting their pupils to larger ones. Since other small schools will be closed in the 1960's, we can look forward to an increasing number of pupils being transported in increasing numbers of publicly owned buses at

Item	1957-58	1958-59	Percentage change
Number of pupils transported at public expense.....	11,350,991	12,021,372	+5.9
Public funds expended for transportation (excluding capital outlay).....	\$420,456,506	\$441,402,595	+5.0
Number of vehicles used:			
Total.....	170,835	176,222	+3.1
Buses.....	151,652	157,626	+3.9
Station wagons, cars, and other...	19,183	18,596	-3.1
Publicly owned.....	111,351	116,852	+4.9
Privately owned.....	59,484	59,427	.....



an increasing total cost but at a slightly decreasing unit cost (in standard dollars).—Emery M. Foster, Chief Research Studies and Survey Section.

For data by State, see "Statistics of Pupil Transportation, 1957-58"

(OE-23003) and "Statistics of Pupil Transportation, 1958-59" (OE-20022), by John B. Murray, Office specialist in pupil transportation. Copies of these 1-page reports are free from the Office of Education.

nation of their teaching programs, spoke with thorough understanding of school program needs.

4. Some of these developments go beyond matters about which even well-informed teachers are qualified to speak. Yet, all these developments must be considered in designing schools that will serve several generations of students.

The only answer to this problem may be an insistence on flexibility of building design through modular construction so that alterations of building space units will

be as easy and inexpensive as possible; an avoidance of costly built-in equipment that cannot be shifted without expensive alterations; an insistence that our professional organizations accept responsibility for keeping us well informed on the shape of things to come and their meaning for school building design—an ear-to-the-ground, eye-to-the-future effort to keep informed through the organization of conferences which permit us to bring in outside specialists and to exchange ideas about school-plant needs.

Separation of powers at administrative levels

MOST studies of board functions in State government focus upon what existing boards are doing or should do, and not on supporting theory. Their authors, along with many others, generally assume that sound practice has a theoretical base and that, by some magic, sound practice can be identified without benefit of theoretical constructions. Professional educators, for example, consider it proper and fitting for the control and direction of State educational programs and services to be placed with representative boards. They build upon this assumption by outlining ways and means of best accomplishing this end.

Many professional educators believe so firmly that their position is right that they forget that an objective defense of it is necessary. With the attitude that "anyone can see," they apparently feel no need to justify their position. However, many intelligent men do not "see." The advocates of the strong executive, for example, firmly disagree with educators about the functional role of State boards. (Advocates of the strong executive believe that the Governor should be the chief administrative officer of the State as well as the chief executive officer.) They recognize the need for State boards for certain fixed purposes but maintain that administrative responsibilities of government are almost invariably best directed by a single official.

The breach between these two positions is most clearly manifested when State government is being reorganized. Professional educators generally recommend a State board of education to head the State department of education,

while the advocates of the strong executive generally recommend that the Governor appoint a competent administrator, usually called chief State school officer, to head the department.

During our history as a nation, State boards of education have been created to perform a variety of duties and to exercise various powers related to them. A listing of these duties and powers would give some idea of what boards have been established to do, but not why any of the duties and powers were delegated to boards and not to a single officer. Theoretical constructions are needed to support what educators believe to be sound practice.

Agreeing that objective reasons for favoring the board over the single officer do exist, we can surmise that State legislatures are reluctant to delegate certain powers and duties to a single officer. More explicitly, there are undoubtedly certain powers and duties that legislative bodies do not generally entrust to a single officer and certain others that they consider best administered by a deliberative body.

There should be no mystery here. Legislatures usually act with some cognizance of human frailties. A cursory examination of practice, past and present, makes certain deductions possible. In general, State legislatures delegate to boards—other than purely advisory boards, which we are not concerned with here—the functions for which broad discretionary powers are considered as essential to good public administration. In general, legislatures most frequently delegate to single officers ministerial duties, or more specifically, duties that require the use of little or no discretionary power.

There are complications, however, that have taxed the ingenuity of lawmakers. Although representative boards are apparently considered best suited to perform duties concerned with the direction and policy control of programs and services requiring broad discretionary powers, they are generally considered inadequate to cope with the technical duties and responsibilities essential to providing such programs and services. Notwithstanding, professional educators believe that under the law boards can be appointed and organized and duties and powers delegated to them so as to minimize their weakness and at the same time fully utilize their strength. Most professional educators believe that representative boards should be responsible for the direction and policy control of



Dr. Will, who is Office specialist for State education organization in the School Administration Branch, is coauthor of the Office publications The State and Education, a study of the structure and control of public education at the State level, and The State and Nonpublic Schools, a study of the responsibility of State departments

of education for nonpublic education. Here Dr. Will discusses theories of State board functions with emphasis on education.

educational activities and for engaging a staff professionally competent to conduct the educational programs and services.

A further complication, much more difficult to resolve, arises: Any board to which the State has delegated such powers and duties as are recommended by professional educators becomes the head of a relatively independent administrative authority in the structure of State government. This violates principles of State government organization advanced by the advocates of the strong executive.

Though State boards have been used in public administration throughout our history, their placement in State government did not present serious functional problems until the 20th century. Before 1900, State boards were generally established to perform duties and exercise powers that common sense dictated should not be delegated to a single official. Legislative decisions on the use of a board or a single officer hinged on the wisdom of having one man or several men responsible for the performance of certain work of State government. Since State administrative responsibilities were not heavy, staffing to assist the board or officer was no problem.

Historically, public administration in State government from 1850 to the early 1900's was characterized by the distribution of executive and administrative powers among a number of State officers and boards. The influence that this practice had on State school administration is evident: All but one of the States admitted to the Union from 1850 to 1957 provided constitutionally for an elected chief State school officer.¹ This official was generally charged with the responsibility of superintending the educational activities of the State. He was usually limited by law to the performance of ministerial duties and his powers were restricted to those necessary in carrying out these duties.

Many of the new States also provided constitutionally for a State board of education, but the majority of these boards were ex officio boards made up of several elected State officers, including the chief State school officer. No matter how the boards were constituted, they were usually responsible for duties that legislatures were reluctant to entrust to a single State school officer, for example, safeguarding educational lands and funds, determining what was to be taught in the common schools—course of study and textbooks—determining who should teach—teacher examination and certification—and governing the operation of one or more educational institutions.

¹ Since 1900 the trend has been toward the board-appointed chief State school officer. Many of these States have amended their constitutions, changing the method of selecting the chief State officer from popular election to appointment by the State board of education.

LIBRARY WEEK—A Kit for Schools



NATIONAL LIBRARY WEEK, "for a better-read, better-informed America," will be celebrated this year on April 16-22. The National Book Committee, in cooperation with the American Library Association, sponsors this program every year. The theme for 1961 is "For a richer, fuller life—read." As the official poster suggests, reading enriches life by enriching, through the eye, both mind and heart.

A school kit containing a large poster, a streamer, a four-color mobile, book marks, a supplementary guide to "Activities for Youth—in School and in the Community" (which appeared in the Organization Handbook for last year's library week), and program suggestions for parent-teacher associations is available for \$1 from School Kit, National Library Week, P.O. Box 365, Midtown Branch, New York 18, N.Y.

JOHN G. LORENZ
*Director, Library Services Branch,
Office of Education.*

Had time stood still, this arrangement would have been ideal. So long as the duties delegated to State boards of education under such governmental patterns did not require a large staff, State boards could serve as purely administrative agencies. More specifically, the members of the board itself could conduct the board's work. It was inevitable, however, that the ever-increasing demands upon State governments for new educational programs and services should outmode the practice.

Early in the 20th century students of public administration, recognizing the need for changes in State government organization, pressured for reorganizations that would promote greater efficiency and economy. Their arguments were centered on the weaknesses inherent in the diffusion of control and direction of public administration. The growing responsibilities of State government could no longer be met by creating more State offices and boards, for the number of agencies already established made it virtually impossible to coordinate the business of State government intelligently.

Searching for answers, students of public administration proposed that the numerous public administrative agencies be grouped into departments on the basis of re-

lated programs and services. Experimentation in a number of States had substantiated the wisdom of this proposal.

At this point the advocates of the strong executive gathered strength. They held that to insure efficiency and economy in public administration, the Governor as the State's chief executive officer should coordinate the business of State government, that he could do this if empowered to appoint a single officer to head each administrative department, such officers to serve at the Governor's pleasure. Thus, the Governor would, in effect, be the chief administrative officer as well as the chief executive officer. The advocates of the strong executive recognized the need for boards to administer duties and responsibilities, or particular phases of duties and responsibilities, that were quasi-legislative, quasi-judicial, or purely advisory, but they relegated these boards to a staff capacity subordinate to the officers heading departments.

Many States utilized departmental patterns in subsequent reorganizations, but with various modifications to minimize the dangers inherent in overcentralization of State administration. Some adopted the basic features of departmental organization under the multiple executive pattern and used boards as functional safety valves. Others prescribed the administrative duties and powers of single officers heading departments in such manner as to make them subordinates of boards for certain department programs. Others named State boards to head particular departments.

The department of education is one of the departments of State government most frequently headed by a board. In January 1961, 22 of the 50 States employed a board, commonly designated the State board of education, to head the State department of education. The State board of education in each of these 22 States is empowered to appoint a professionally competent school administrator to direct the staff of the department.

Advocates of the strong executive have criticized the employment of boards to head administrative departments of State government largely on the grounds that this practice creates independent administrative authorities in the State government. They hold that practically all public administrative agencies should be functional components of the executive branch of the State government of the sovereign State. Great weight is added to this argument by the fact that the Constitution of the United States apparently sustains this position for the Federal Government. (Article II, Section II, Par. 1, uses the term "executive departments.")

Advocates of the strong executive have, however, ignored certain considerations. Foremost, they have constructed theory largely upon the basic assumption that executive and administrative functions of government are

inseparable. Alexander Hamilton could well be named as one of the architects of this premise, for as Publius he wrote:

The administration of government, in its largest sense, comprehends all the operations of the body politic, whether legislative, executive, or judiciary; but in its most usual and perhaps in its most precise signification, it is limited to executive details, and falls peculiarly within the province of the executive department.

—*The Federalist*, No. 72.

Such concepts did not create theoretical conflicts in public administration so long as the work of government could be regulated explicitly by statute. The weaknesses of theoretical constructions that failed to distinguish between executive functions and administrative functions became apparent when State legislatures found it impossible or impracticable to frame legislation in sufficient detail to direct and control public administration. To solve this problem State legislatures have delegated broad discretionary powers to certain State administrative agencies, permitting them to fill in the details of the law and to adjudicate differences that arise in conducting their business. However, a reconstruction of theory was necessary to preserve some semblance of a separation of powers in State government. Since State administrative agencies were popularly recognized as executive agencies, they could not, without some rational explanation, be delegated what appeared to be lawmaking or judicial powers of the State.

The evolving body of administrative law is the product of theoretical reconstruction. Administrative lawmaking is now firmly established as rulemaking, and administrative adjudication is provided for through structural and procedural arrangements that safeguard the rights of individuals and protect property under the law. Even so, the vestiges of outmoded theory are still evident in the terminology frequently used in rationalizing legislative delegations of broad discretionary powers to public administrative agencies. Rulemaking powers are frequently referred to as quasi-legislative powers, and powers of administrative adjudication are referred to as quasi-judicial powers. Significantly, the term "quasi-executive powers" is rarely, if ever, used in the literature of public administration.

The roundabout approach to the separation of powers in public administration tends to cloud the issues. The atmosphere can be cleared quickly with a simple explanation. Executive functions of State government are determined solely by constitutional law; administrative functions are largely determined under statutory law. Most

State constitutions do create several administrative offices in addition to the executive offices, but the State legislature is generally charged with the task of prescribing the duties and responsibilities of these offices. State legislatures in the United States cannot create sovereign executive agencies nor can they delegate sovereign executive powers and duties. State legislatures can and do create State administrative agencies and delegate administrative powers and duties to them.

State legislatures can remove public administration almost entirely from the executive sphere of control, respecting only the constitutional prescription of executive and administrative powers and duties. It is imperative to democratic government, however, that, in doing so, the State maintain a reasonable separation of powers at administrative levels. Here the board becomes an indispensable element in the State governmental structure for public administration.

Theoretical constructions focusing on State government must have the built-in flexibility to support a rational explanation of our republican form of government that provides for relatively independent public administration for a wide variety of public purposes. Examples of independent public administrative authorities are municipal governments, independent districts of State government such as school districts, and self-governing State institutions. Realistically, if all powers and duties were divided conveniently into three departments in each State, the degree of centralization would be alien to our form of government. Decentralized government permits a multitude of relatively independent public administrative authorities to exercise broad governmental powers for particular public purposes.

An independent public administrative authority should logically possess all powers of government at administrative levels essential to accomplishing the purposes for which it exists. In that the powers vested in these organizations—for example, municipal governments—must be extensive, the need for structural and functional separation of powers within the authority is readily apparent. Thus, in every public administrative authority that has broad self-governing powers, structural and organizational provision must be made to facilitate the rule of law.

Each independent public administrative authority—particularly those established for educational purposes—may be likened to a “republic” possessing enumerated powers that have been delegated to it by the State. The separation of administrative powers can thus be accomplished by distributing governmental functions to three departments or divisions similar to those of the State: The legislative, the executive, and the judicial. The legislative department provides for the control and policy

direction of the “republic,” a responsibility that professional educators believe should be entrusted to a representative body or board. The executive department provides for the technical administration of the “republic,” a responsibility that professional educators believe should be entrusted to a technically competent staff employed by the representative body. A chief executive officer would be designated by the board to serve as technical manager.

This arrangement subordinates the technical administration of the “republic” to the civil authority. Provision may be made for a judicial department in the form of administrative courts or tribunals, or through procedural arrangements. The most common procedural arrangement in educational government is made by delegating the responsibility for fact finding and making technical rulings to the technical manager of the “republic,” and the civil jurisdiction—when necessary—to the board.

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Continued from page 19

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ad Minutes

Briefly noted ...
for the busy School Administrator

Material for this department is prepared in the School Administration Branch, Division of State and Local School Systems. This month Adminminutes carries only one story, by Elmer C. Deering, who regularly supplies this department with current data on school bond sales. All the other items have been omitted to make room for an article elsewhere in this issue which names some possible and highly probable developments in school administration in the decade ahead.

Bond sales, 1959-60. The dollar volume of new bond sales for public school purposes for the year beginning July 1, 1959, and ending June 30, 1960, was \$2.2 billion. In addition to school districts, the agencies issuing the bonds included States, counties, cities, towns, townships, boroughs, school building authorities, and school building holding companies.

The monthly sales by all agencies reached these totals:

1959	In thousands	1960	In thousands
July	\$139,679	January	\$211,135
August	143,369	February	173,589
September	152,268	March	206,000
October	155,513	April	293,826
November	154,610	May	128,134
December	170,812	June	266,307

Prior to original sale, Moody ratings were assigned to bonds totaling \$1.5 billion. No bonds were assigned a rating below BA. Monthly sales of rated bonds were as follows:

1959	In thousands	1960	In thousands
July	\$79,935	January	\$106,137
August	95,626	February	54,402
September	111,821	March	140,984
October	117,254	April	227,439
November	118,384	May	83,395
December	133,291	June	197,821

Even before the year ended the difference in interest costs between short term and long term bonds became clear. Of the school bonds sold in the first 10 months, those maturing in 25 years and over had an average net interest cost about one-half of one percent higher than those maturing in less than 15 years (*School Life*, September 1959). Now, with figures available for the entire year, a more precise distinction is possible. A comparison of all 10-, 20-, and 30-year bonds sold during 1959-60 shows that 30-year bonds cost more than shorter bonds. The average interest on these bonds was as follows:

1959-60 period	10 years	20 years	30 years
July	3.58	3.83	4.35
August	3.52	3.73	4.36
September	3.68	4.06	4.51
Quarter	3.59	3.84	4.39
October	3.46	3.89	3.90
November	3.76	3.58	3.88
December	3.59	3.81	4.05
Quarter	3.62	3.75	3.99
January	3.84	3.88	4.24
February	3.40	3.91	4.18
March	3.67	3.64	4.08
Quarter	3.57	3.78	4.15
April	3.68	3.96	4.14
May	3.48	3.75	4.16
June	3.38	3.67	3.84
Quarter	3.54	3.76	4.01
Yearly average	3.56	3.77	4.12

Average net interest cost of new bond sales for public school purposes, in percent, October 1959-October 1960, by Moody rating

This summary is based on sales reported by the Investment Bankers' Association. About 75 percent of the sales had a Moody rating. None of the school bonds sold in October had ratings of AAA or BA. The average net interest cost for October was slightly higher than for August and September but lower than for June and July.

Period	Bond ratings					
	AAA	AA	A	BAA	BA	All ratings
1959-60						
October	3.03	3.38	3.75	4.21	.....	3.85
November	3.06	3.43	3.79	4.10	4.75	3.71
December	.....	3.80	3.91	4.22	.....	3.94
January	3.29	3.59	4.03	4.39	4.71	3.80
February	.....	3.60	3.71	4.09	4.48	3.86
March	*4.02	3.40	3.64	4.19	4.58	3.79
April	3.18	3.63	3.79	4.24	4.50	3.83
May	3.24	3.31	3.77	4.13	4.51	3.80
June	3.02	3.66	3.62	4.12	4.30	3.73
1959-60 average	3.26	3.63	3.78	4.21	4.55	3.84
1960-61						
July	3.08	3.37	3.72	4.00	4.47	3.78
August	2.81	3.01	3.47	3.73	4.23	3.47
September	2.66	3.56	3.48	3.80	4.41	3.51
October	.....	3.26	3.54	3.90	.....	3.63

*All are revenue bonds of school building authorities, which are usually at least 0.5 percent higher than tax obligation bonds.

Four years of progress

This month sees the close of Lawrence G. Derthick's service as U.S. Commissioner of Education. A review of all that has happened in education on the national scene, both within and outside the Office of Education, during his incumbency would hardly be possible in this brief space. But here Dr. Moffitt, by touching on a few of the developments in which the Office of Education has had a part, manages to give a good idea of the "ferment and change that has taken place."

NO ONE who has not been directly associated with education during the past few years can understand the ferment and change that has taken place. There have been new opportunities and new challenges, some of them resulting from a growing public realization that education is indeed basic to the national security and the general welfare of mankind and that it is influential in shaping world affairs.

The highlight of the past 4 years was the passage in 1958 of the National Defense Education Act, which has been called a milestone in the progress of education in the United States. Among its many important features is the student loan program aimed at encouraging needy and qualified students to continue their studies into colleges or graduate schools. More than 1,300 colleges and universities are participating in the program, and approved loans total more than \$50 million, more than four times the amount loaned by the colleges in 1956.

The act has supported a Federal fellowship program, which provides assistance to graduate schools in all fields. It has augmented guidance, counseling, and testing services in a national effort to identify and conserve the talents of high school students and in other ways has greatly encouraged the improvement of instruction and the pursuit of excellence. More than 6,000 counselors have received training at counseling and guidance institutes, and it is estimated that almost two million students will benefit from their training.

The act has materially strengthened elementary and

secondary school programs in science, mathematics, and modern foreign languages by making available funds for equipment as well as for State supervisory and related services. In 2 years the number of public school electronic language laboratories has grown from 64 to more than 1,000. Professional competencies of teachers have been upgraded through widespread use of institutes and workshops, and there has been a significant development of State curriculum guides.

Under the act the Office of Education has led in the establishment of program centers for the development of instructional materials and the improved teaching of foreign languages. Thus it has initiated a radical change in attitudes toward the importance of learning foreign languages and has stressed the critical need to develop new methods of teaching them.

Great strides have been made in encouraging research and experimentation in the best instructional use of the new communications media. Both educators and informed laymen are convinced that many educational problems may be solved by wider and more effective use of motion pictures, television, radio, and other media. A series of films is being completed on current uses of new media for teaching modern foreign languages, science, and mathematics. Principles for the production of improved instructional materials are being identified.

Current developments in teaching machines, educational television, language laboratories, and similar devices are opening up possibilities that hold bright promise for improvement of educational communication.

Under NDEA, area vocational training programs in occupations necessary to national defense are being conducted in all States, Puerto Rico, and the District of Columbia in schools of all types. These programs are providing training for highly skilled technicians in electronics, mechanical drafting and design, instrumentation, engineering aids, industrial chemistry, data programing, and metallurgy.

One of the most interesting projects carried on by the Office since the passage of the National Defense Education Act has been assistance to States in their efforts to improve accuracy and speed in gathering and interpreting educational statistics. The program has stimulated many States to initiate or expand their efforts toward improving the adequacy, reliability, and timeliness of the educational

Dr. Moffitt, who came to the Office of Education in February 1960 as assistant to the Commissioner, has worked closely with Commissioner Derthick during the last year of his administration.

data on State and local systems. States are improving statistical procedures in departments of education, adopting standard terms and standard definitions of educational terms, which makes it possible for the Office to collect and compile comparable statistics on education. Four years ago, 13 States were using data-processing machines to some extent; now 38 States either have installed or have definite plans to install machine systems.

Another forward stride during the past 4 years has been in the expansion of education research, which many consider one of the most important phases of the educational processes. Since the program began operation, in July 1956, \$12.3 million in Federal funds has been obligated for 317 research projects designed to seek out basic factors of human behavior that seem applicable to the classroom and the process of education and to utilize these factors in specific projects to increase the ability of the teacher in the classroom, increase the educator's understanding of children, and provide new and better knowledge about what is to be taught.

Under the impetus of the cooperative program, studies are being conducted in student behavior and characteristics, the teaching-learning process, teaching methods and course content, human talent utilization, school administration and organization, curriculum design, mental retardation, exceptional mental ability or talent, and socioeconomic and demographic factors and their effect on the education of children.

Since the passage of the Library Services Act in 1956, 30 million rural people have been given new or improved public library services: For the first time more than one million rural children and adults have public library services; 7.6 million more have substantially improved services; 65 rural counties and an equal number of New England towns formerly without any public libraries are receiving library services; approximately 200 new bookmobiles have begun operating in rural areas; more than 5 million books and other forms of informational materials have been made available to rural communities; hundreds of counties and towns are developing county or regional systems; and State and local funds for rural library service have been increased.

The Office has made considerable progress in working with State and local school officials in solving education problems. Office handbooks on financial accounting, property accounting, and personnel accounting in State and local school systems, and analytical studies of administration, finance, and business management have received wide acclaim.

There have been significant developments in vocational education. The Office has conducted conferences

in various phases of vocational education, among them conferences on implications of technological change in industry for trade and industrial education.

Through the work of the Office, associations, and interested groups, more Americans are recognizing the value of adult education, and more and more are being given an opportunity to continue their education. The Office has assumed leadership in the field by identifying the needs and problems, collecting, analyzing, interpreting, and publishing the facts about adult education.

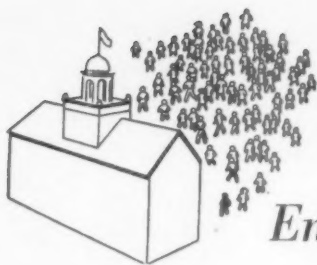
The Office has greatly expanded its services to higher education during the 4-year period. By 1960 the Office was sketching in bold outlines the emergency that will confront the Nation's colleges and universities in the middle and late '60's. On the basis of a comprehensive national survey of higher education it has projected a realistic estimate of the physical plant needs of colleges and universities for the next decade. It has repeatedly assisted States in designing studies for their use in appraising their resources and facilities in higher education on the basis of their future needs.

The Office's work in international education has greatly expanded as a result of the increase in number of newly independent countries and their interests in education as a means of national development; the growth of the United Nations and its specialized agencies; and the use of education in developing public policy, here and abroad.

Staff members have continued to collaborate with international organizations and agencies by participating in seminars, meetings of experts, and conferences and by making studies. For example, it has prepared numerous reports for UNESCO, including reports on secondary education, university education, on discrimination in education; and on social development, which might be of value to underdeveloped countries.

This year the Office opened the foreign education documents room in its Materials Laboratory. With hundreds of foreign textbooks and publications, including books, government documents, and university releases, the documents room, we believe, now possesses on some countries the best source material in the United States.

While the record of the past 4 years speaks eloquently for itself, the facts and figures on progress can never reveal the sense of challenge and urgency, the teamwork, and the high morale which has permeated the Office of Education during the administration of Commissioner Derthick. As the American Association of Land-Grant Colleges and State Universities put it, in its bulletin: "The Office of Education has grown substantially in stature, support, and program during Dr. Derthick's term of office."



Enrollment, teachers, and schoolhousing

HIGHLIGHTS FROM THE FALL 1960 SURVEY OF PUBLIC SCHOOLS

EVERY YEAR the Office of Education publishes data gathered from State departments of education on selected basic items of information about the public elementary and secondary schools in the United States. This year's report, which summarizes the fall 1960 survey, is being issued in February. National totals in the report are for the 50 States and the District of Columbia. The Office believes that the reporting this year is on a sounder basis than ever before: in most instances, the figures supplied by the States were based on answers to questionnaires completed by local school systems, rather than on State estimates, as they more often were in the past.

Some of the facts reported by the States for the fall of 1960 are these:

Pupil Enrollments

36.3 million pupils were enrolled—24.5 million in elementary schools and 11.8 million in secondary schools. Altogether this was an increase of 1.1 million, or 3.2 percent, over the fall of 1959.

Classroom Teachers

1,410,000 classroom teachers (counting both full-time and part-time teachers) were employed, 861,000 in the elementary schools and 549,000 in the secondary. This was an overall gain of 55,500, or 4 percent, over the 1959 total.

Substandard Credentials

91,500 teachers had substandard credentials—a decrease of 5,500, or 5.6 percent, from the year before. The percentage of all teachers with such credentials also fell, from 7.2 percent in 1959 to 6.5 percent in 1960. Most of these teachers were in the elementary schools—67,200, compared to 24,300 in the secondary.

Instruction Rooms Completed

69,400 classrooms were completed during 1959–60; this figure, which includes both new construction and rooms

converted from other uses, is approximately the same as the number for 1958–59, but below the peak of 72,000 completed in 1957–58.

Instruction Rooms Under Construction

69,600 classrooms are scheduled for completion in 1960–61. This is somewhat better than the 69,400 rooms completed in 1959–60, but something less than the average of 70,000 for the 5-year period ending with 1960–61.

Instruction Rooms Abandoned

17,800 classrooms were abandoned during 1959–60, partly because districts were reorganized and consolidated, partly because buildings became obsolescent. In the year before the figure was 16,400.

Pupils in Excess of Capacity

1,868,000 pupils were in excess of normal capacity, an increase of 122,000 over the number in the fall of 1959. In 36 States and the District of Columbia 685,000 pupils were on curtailed or half-day sessions. About half of the 685,000 are included among the pupils reported as being in excess of normal capacity.

Classroom Shortage

142,100 additional instruction rooms were needed in the fall of 1960—6,900 more than the 135,200 needed the year before (the total shortage of 132,400 reported in the fall of 1959 was revised to 135,200 after 5 States sent in revised figures). The shortage for the fall of 1960 consisted of 66,100 classrooms needed to accommodate pupils in excess of normal capacity and 76,000 to replace unsatisfactory facilities.

Figures given here are from Office of Education Circular No. 634, *Fall 1960 Statistics on Enrollment, Teachers, and Schoolhousing*, by Samuel Schloss and Carol Joy Hobson. It will be available from the Office of Education in February.

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By Winifred Ward, with the cooperation of the Children's Theatre Conference, and in collaboration with Mayo Bryce, 1960, 66 pp., 30 cents (OE-33007).

Education Directory, 1960-1961, Part 1, Federal Government and States.

By Louise Ratliff Murphy, 1960, 83 pp., 30 cents (OE-20004-61).

Education in the United States of America.

By an Office of Education editorial committee, 1960, 134 pp., 50 cents (OE-10006).

Organization and Effective Use of Advisory Committees.

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By Irwin Abrams, 1960, 21 pp., 15 cents (OE-50016).

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Civil Defense Education Newsletter.

Number 4, 1960, 8 pp. (OE-13004-4).

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Report of a National Conference, 1960, 89 pp. (OE-84013).

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By the Division of Vocational Education, Home Economics Education Branch, September 1960, 93 pp. (OE-83007).

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Special Education Personnel in State Education Departments.

By Romaine P. Mackie, September 1960, 11 pp. (OE-35003A).

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By Henry S. Brunner, reprint from *School Life*, October 1960, 18 pp. (OE-50017).

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